virtustream
Actualize the Enterprise Cloud™

Managed BaaS

Cloud Backup & Recovery Services

The Trouble with Tape

There is growing awareness that traditional backup technologies based on magnetic media fail to meet enterprise **backup and recovery** needs.

Storage Magazine surveyed its readers to determine how often unreliable tapes were at the heart of a backup failure. When asked to describe the tape failure situation, **nearly a third of the respondents (31.2%) said it was either a significant problem** that often disrupts backups or sometimes disrupts backups.

A survey by the Yankee Group and Sunbelt Software found that **40% of IT Managers have experienced situations when they have been unable to recover data from a tape** when they needed it.

According to Gartner, Inc., **71% of all tape restores fail**, while Strategic Research claims 54% and **Microsoft found 42% of attempted recoveries from tape failed in the past year**. Ben Matheson, group product manager for Microsoft Data Protection Manager, said, "More than half of customers said their current backup solutions don't fill their needs."

Given the statistics regarding tape restores, it is stunning that few organizations mitigate their risks.

"Over 34% of companies do not test their backups and of those that tested, **77% found their tape backups failed to restore.**"

Storage Magazine

These statistics are alarming enough on their own. The risk of data loss is significant. Most data loss is isolated to a specific system. However, when there is a broader event that leads to the need to perform a site level disaster recovery need, the data loss can be catastrophic.

"It is estimated that 60% of companies that lose their data shut down within 6 months."

Storage Insider

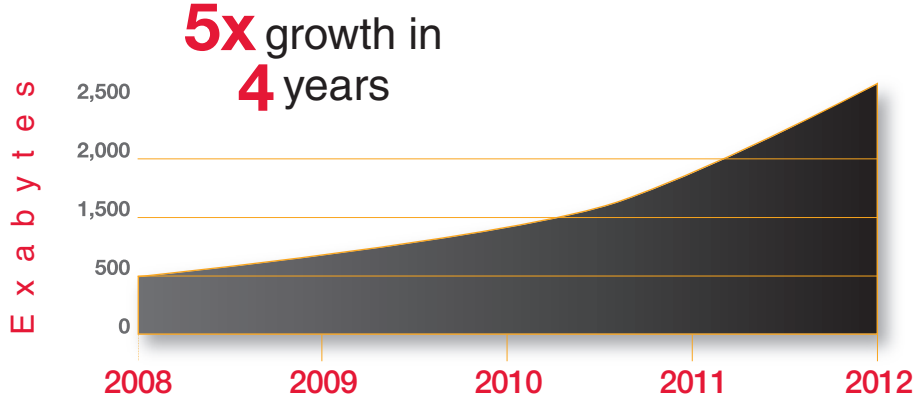
There has been an increasing trend in recent years for organizations to exceed their backup windows. Often full backups that begin on a Friday night have not finished by Monday morning. This increases risks, particularly with tapes that must be transported off site. The failure to meet backup windows results from the confluence of two disruptive trends that have dramatically increased the data protection challenge over the past decade. These trends are the explosive growth of digital data, and the rapid adoption of virtualization technologies that drive massive server consolidation. The net effect is a huge increase in data volumes that must be protected, but that are concentrated on an ever smaller number of physical devices.

While the physical server counts decline, business requirements drive an ever increasing number of servers, meaning more operating systems to backup as well as more data. This leads to greater complexity, and much greater resource contention. The amount of data created and under management is growing rapidly, and this growth is increasing geometrically. IDC has projected that total data volumes will increase by a factor of five over the next four years.

What is frequently overlooked is that the backup footprint, with dailies, weeklies, monthlies, quarterlies, annuals, fulls, incrementals, differentials, local and remote can often represent as much as 30 times the capacity of your primary storage. Compounding that is the fact that regulatory requirements or IT governance initiatives are requiring companies to keep more information for a longer period of time. All this is putting data at risk - and creating enormous pressure on IT budgets. Something has to be done.

The second shift impacting data protection is server virtualization - backup designs and processes that worked for physical server infrastructure are not necessarily holding up well in the virtualized environment. But when you look at this trend through the lens of backup, you see some interesting challenges. When new servers can now be created in an instant with a point and a click, how can I ensure they are associated with the correct backup policy? How do I manage backup schedules across constantly changing infrastructure workloads? And how do I make a complete physical backup without grinding production workloads to a slow crawl?

Digital Information Created and Replicated Worldwide



Source: IDC Digital Universe white paper, sponsored by EMC, May 2009

You're only as good as your last recovery

ABOUT VIRTUSTREAM

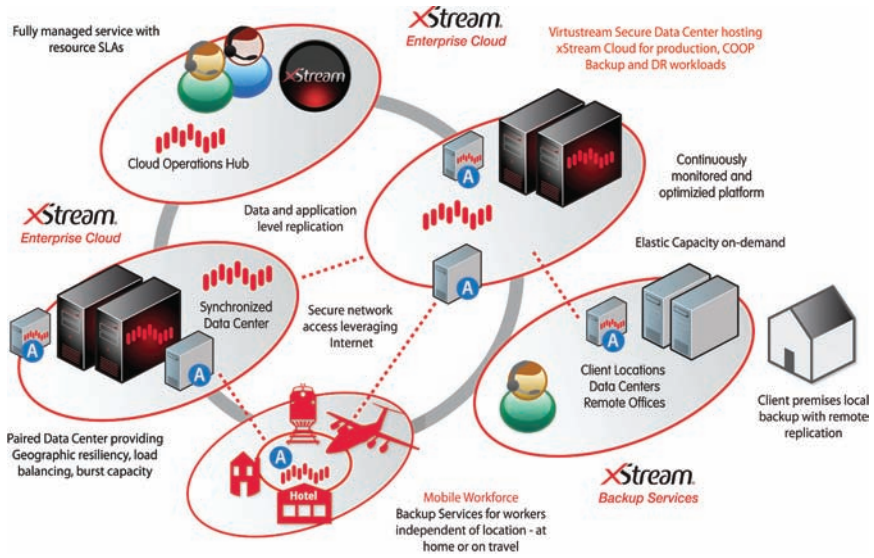
Virtustream (www.virtustream.com) is an innovative cloud provisioning firm committed to delivering next generation infrastructure services to enterprise class customers. We leverage our secure high performance platform, xStream, to deliver highly available and elastic compute resources at true consumption-based pricing. We lead our Cloud Platform Services with Cloud Advisory Services, providing expertise in the areas of cloud adoption, migration and architecture strategies and infrastructure-related integration services. We provide ongoing support for our Cloud Platform Services through two groups: Our Cloud Cover team provides a managed service, from core infrastructure through enterprise applications and the Cloud Staging and Networks group that provides colocation, security and network services. Virtustream owns and operates its own data centers in the U.S. and U.K., and has offices in Washington, D.C., New York, San Francisco, Atlanta, London, Dublin and the Channel Islands.

For more information on Virtustream and Virtustream's xStream platform, please contact info@virtustream.com

Virtustream launched the industry's most efficient cloud computing platform, xStream® in the spring of 2010. Customers began adopting the xStream platform in the 2nd quarter and during the 3rd quarter of 2010, Virtustream completed the transformation of a leading packed goods enterprise to the xStream platform. This transformation included production SAP ERP and financial applications, Messaging, SQL, SharePoint, and other enterprise applications supporting thousands of users. The SAP implementation is the largest SAP deployment in the cloud to date, and includes many databases in excess of 500GB, and several over 1TB. To date, restores from the Virtustream backup service have totaled in excess of 8TB - primarily to build QA and DEV SAP landscapes from Production DBs - with a success rate of 100%. The Virtustream Backup Service is protecting several hundred Terabytes of data - replicated to a secondary data center for offsite backup.

In order to deliver reliable Infrastructure as a Service (IaaS) and SAP application services to our cloud customers, Virtustream has simultaneously deployed one of the leading cloud backup solutions in the industry. Virtustream's Backup as a Service (BaaS) offering is based on IP developed during nine years in the private cloud and virtualization space in combination with industry leading technologies that optimize bandwidth, provide automated offsite replication, and include self-service restore capabilities.

As the industry's only true hybrid cloud solution, xStream requires offsite and remote backup and restore capabilities as core features to our complementary BaaS offering. Our flexible solution provides numerous deployment options to meet any organizational need. Virtustream offers backup services to our xStream Platform customers within our own data centers, as well as customers with on premises or hosted private clouds, remote offices, and mobiles user populations seeking offsite backup and recovery solutions.



The Virtustream's managed BaaS offers solutions that involve local or remote copies of data - or a hybrid approach. When we deploy an appliance (A) in your site, we replicate the data to one of our secure data centers to provide remote backup. We offer flexible policy options, including on demand backup. Our service is uniquely efficient, and is billed on a consumption based model. The Virtustream BaaS offering provides unique recovery capabilities when paired with the xStream platform. We also offer rapid restores to our cloud platform as a means of disaster recovery, or for testing purposes.

www.virtustream.com